

Claims

What is claimed is:

1. A light source comprising:
a heat conductive plate;
a plurality of LEDs supported by the plate;
electrical circuitry supported on the plate providing electrical connection to the LEDs; and
a heat conductive stem supporting the plate.
2. The light source in claim 1, wherein the heat conductive plate includes a beveled radial face supporting at least one LED.
3. The light source in claim 1, wherein the heat conductive plate includes at least one tab supporting at least one LED.
4. The light source in claim 3, wherein the at least one tab has a planar face forming an angle with respect to a plane transverse to an axis of the stem, thereby generally directing light from the supported at least one LED an angle away from the stem.
5. The light source in claim 1, wherein the lamp has a forward direction extending axially away from the plate, and a majority of the LEDs are supported on the plate to face substantially away from the forward direction.
6. The light source in claim 5, wherein the majority of the LEDs are not directly visible from an axial view, opposite the forward direction.
6. The light source in claim 1, wherein the electrical circuitry provides at least one series connection between at least one group of the LEDs.

7. The light source in claim 1, wherein the electrical circuitry includes deposited circuit lines supported by the plate. Not shown?
8. The light source in claim 1, wherein the electrical circuitry includes;
9. The light source in claim 1, wherein the heat conductive stem supporting the plate provides at least one channel for electrical connection to the electrical circuitry.
10. The light source in claim 1, wherein the heat conductive stem supporting the plate provides a reflective surface for reflecting light generated by the LEDs.
11. The light source in claim 1, wherein the heat conductive stem supporting the plate in combination with the plate define at least one recess surrounding at least one LED having a surface wall generally facing the LED and reflecting light from the recess.
12. An LED lamp assembly comprising a plurality of LEDs mounted on a plate, the plate supporting electrical circuitry electrically connecting the LEDs
a thermally conductive stem mechanically supporting the plate and providing a thermally conductive path from the plate;
a heat dissipating skirt coupled to the stem, the stem and skirt providing an internal electrical passage for electrical leads coupled to the electrical circuitry where the exterior surface of the stem includes a light reflective surface.
13. The LED lamp in claim 12, wherein electrically insulating guides with progressively narrower diameters guide the leads in the stem.
14. The LED lamp in claim 12, wherein the skirt is mechanically coupled to the back of a reflector.

15. The LED lamp in claim 12, wherein the exterior optical surface of the stem directs light from the LEDs to a reflector.
16. The LED lamp in claim 12, wherein the exterior optical surface of the stem diffuses light from the LEDs hereby breaking up the image of the LEDs.
17. The LED lamp in claim 12, wherein the exterior optical surface of the stem absorbs light from the LEDs hereby limiting uncontrolled light emission.